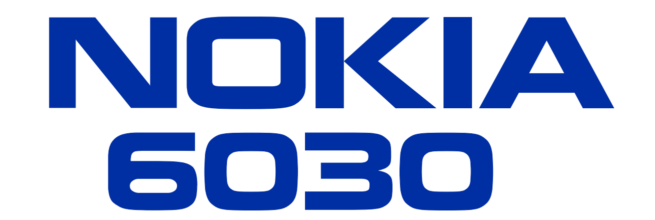
Service Schematics



RM-74/RM-75

Introduction

IMPORTANT:

This document is intended for use by authorized NOKIA service centers only.

"Service Schematics" was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
It contains additional information such as e.g. "Component finder", "Frequency band table" or "Antenna switch table".
The "Signal overview" page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionally to the service manual and other training or service information such as Service Bulletins.

All measurements were made using following equipment:

Nokia repair SW	:	Phoenix version 2005.12.5.90
Oscilloscope	:	Fluke PM 3380A/B
Spectrum Analyzer	:	Advantest R3162 with an analog probe
RF-Generator / GSM Tester	:	Rhode & Schwarz CMU 200
Multimeter	:	Fluke 73 Series II

While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA should be notified in writing.

Please send E-Mail to: training.sace@nokia.com

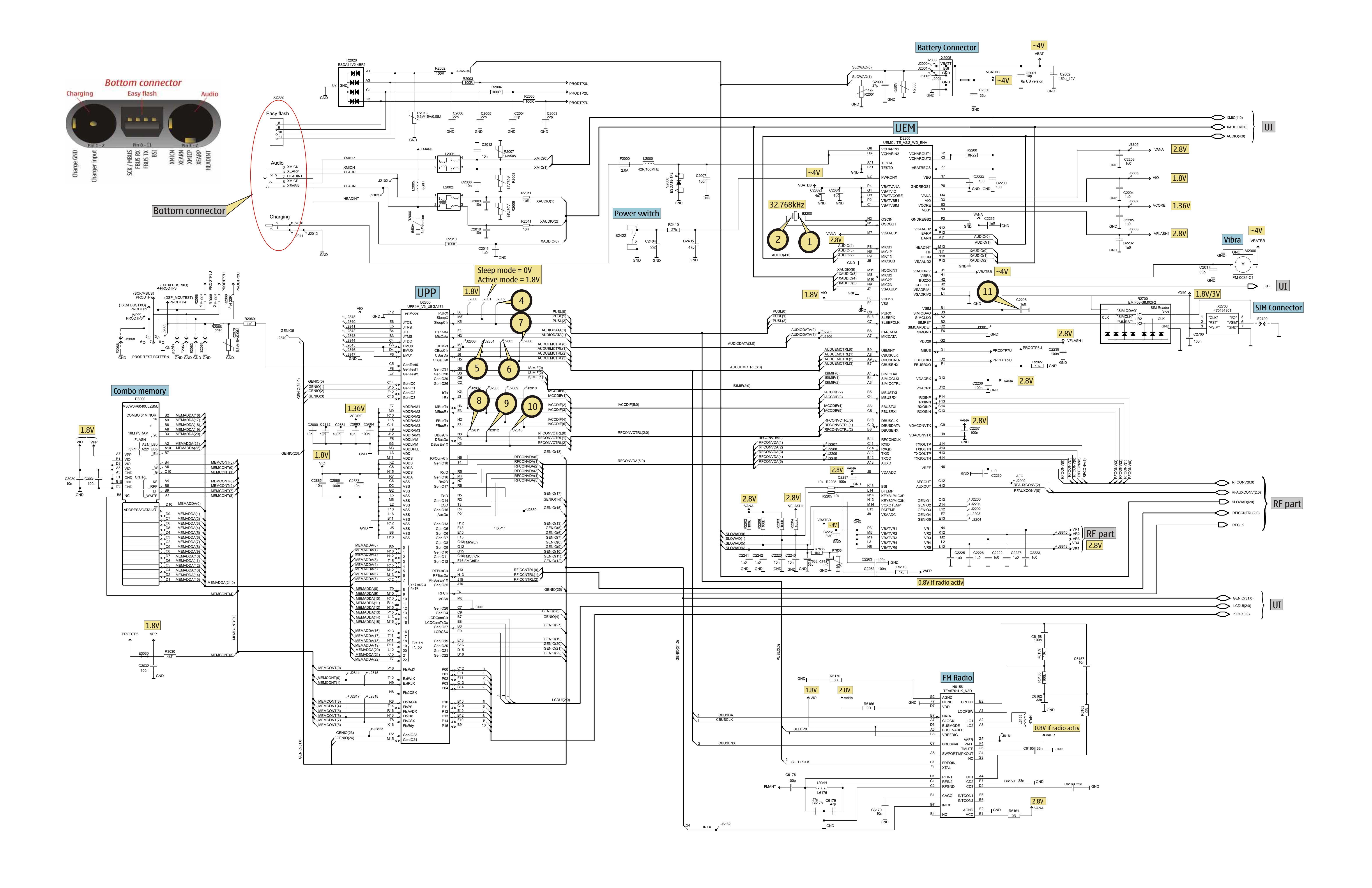
Exploded view and component disposal

A-Cover (A1) I001 *
Soft Keys (A1) I002 *
Keymat I003
6 x Screws T6+ I004
LCD Shielding I005
LCD Module I007
Acoustic Channel I006
Light Guide Assy I009
Locking Clip I008
Domesheet I010
Engine Module (not supplied) I011
FEM Shielding Lid I014
RF Shielding Lid I013
BB Shielding Lid Assy I012
SIM Lid (A3) I018 *
Antenna (A2) * I015
Microphone (A3) I019
IHF (A2) * I016
Easy Flash Connector Cap I025
Power Button (A3) * I017
Easy Flash Connector (A3) I020
D-Cover (A3) * I021
Type Label (Level 3/4 only) I022
Top Cap I024
B-Cover I023

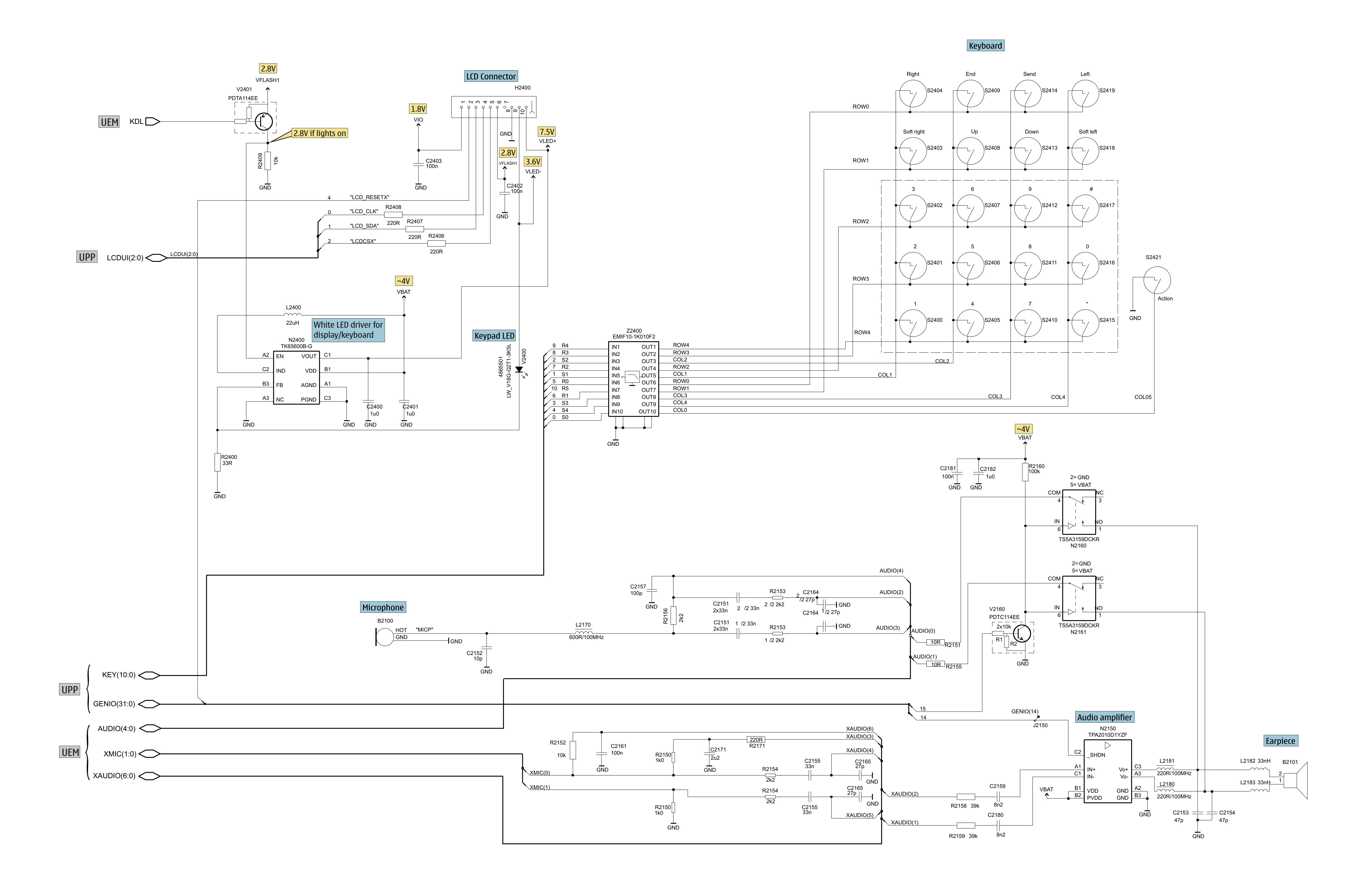
A1= A-COVER ASSY
A2= ANTENNA IHF ASSY
A3= D-COVER ASSY

* = ONLY AVAILABLE AS ASSEMBLY

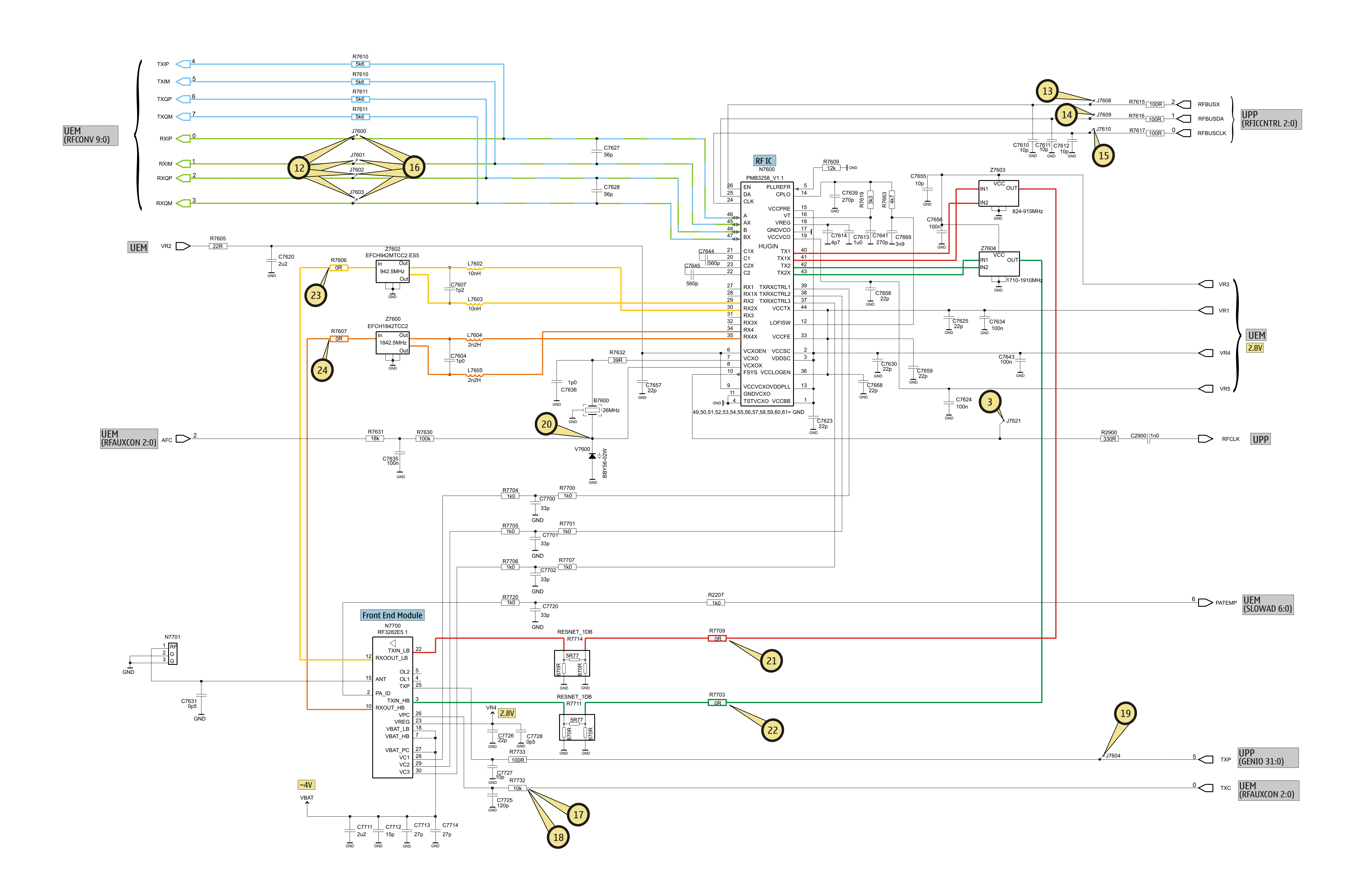
ELECTRO SILICONE METAL PLASTIC PWB COVER

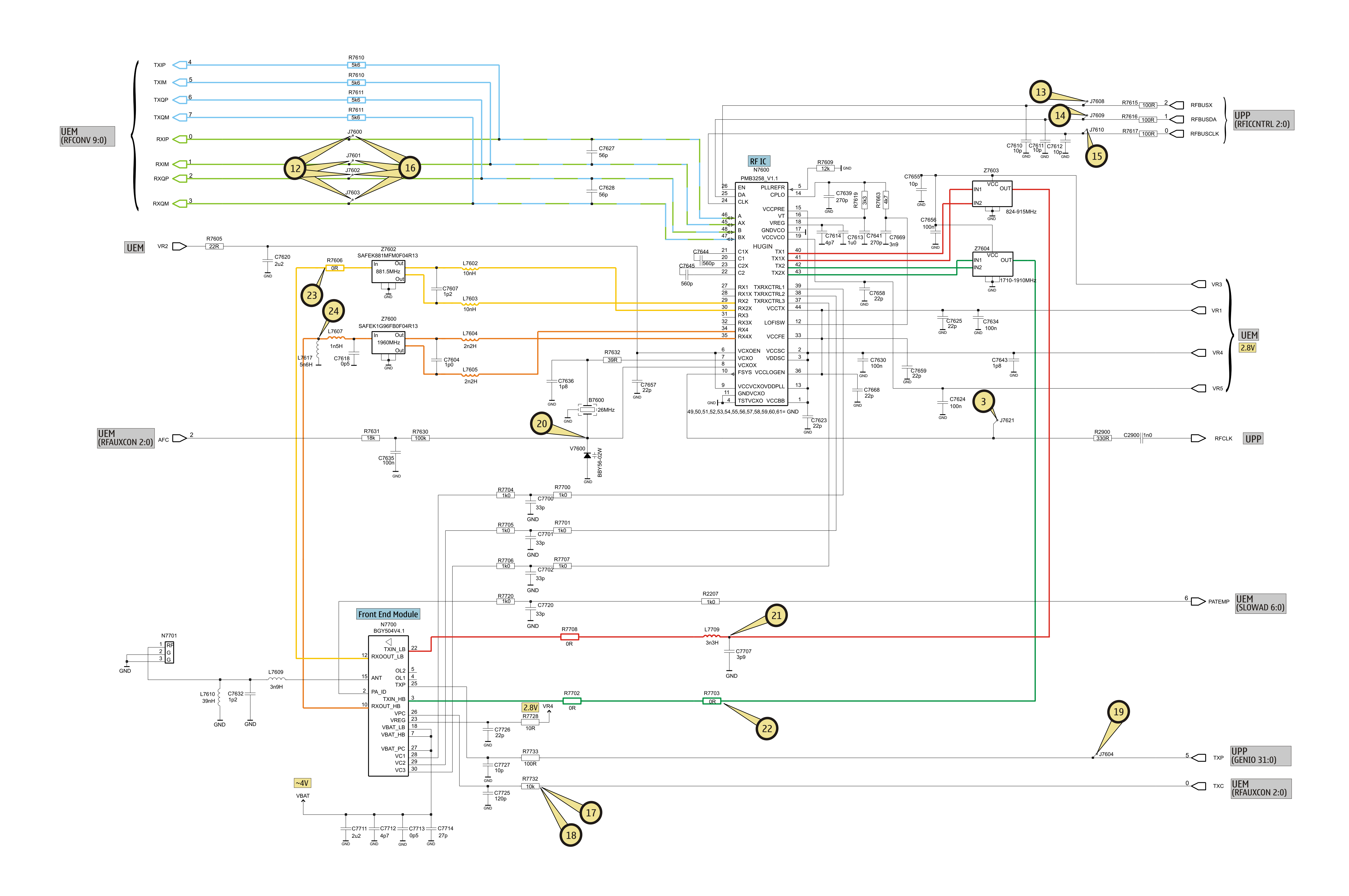


Bottom connector
Charging
Easy flash
Audio
Charge GND
Charger input
SCK / MBUS
FBUS RX
FBUS TX
BSI
XMICN
XEARN
XMICP
XEARP
HEADINT
Bottom connector
Battery Connector
~4V
UEM
UPP
Sleep mode = 0V
Active mode = 1.8V
1.8V
1.36V
2.8V
32.768kHz
Power switch
Combo memory
Vibra
SIM Connector
1.8V/3V
UI
RF part
FM Radio
0.8V if radio activ

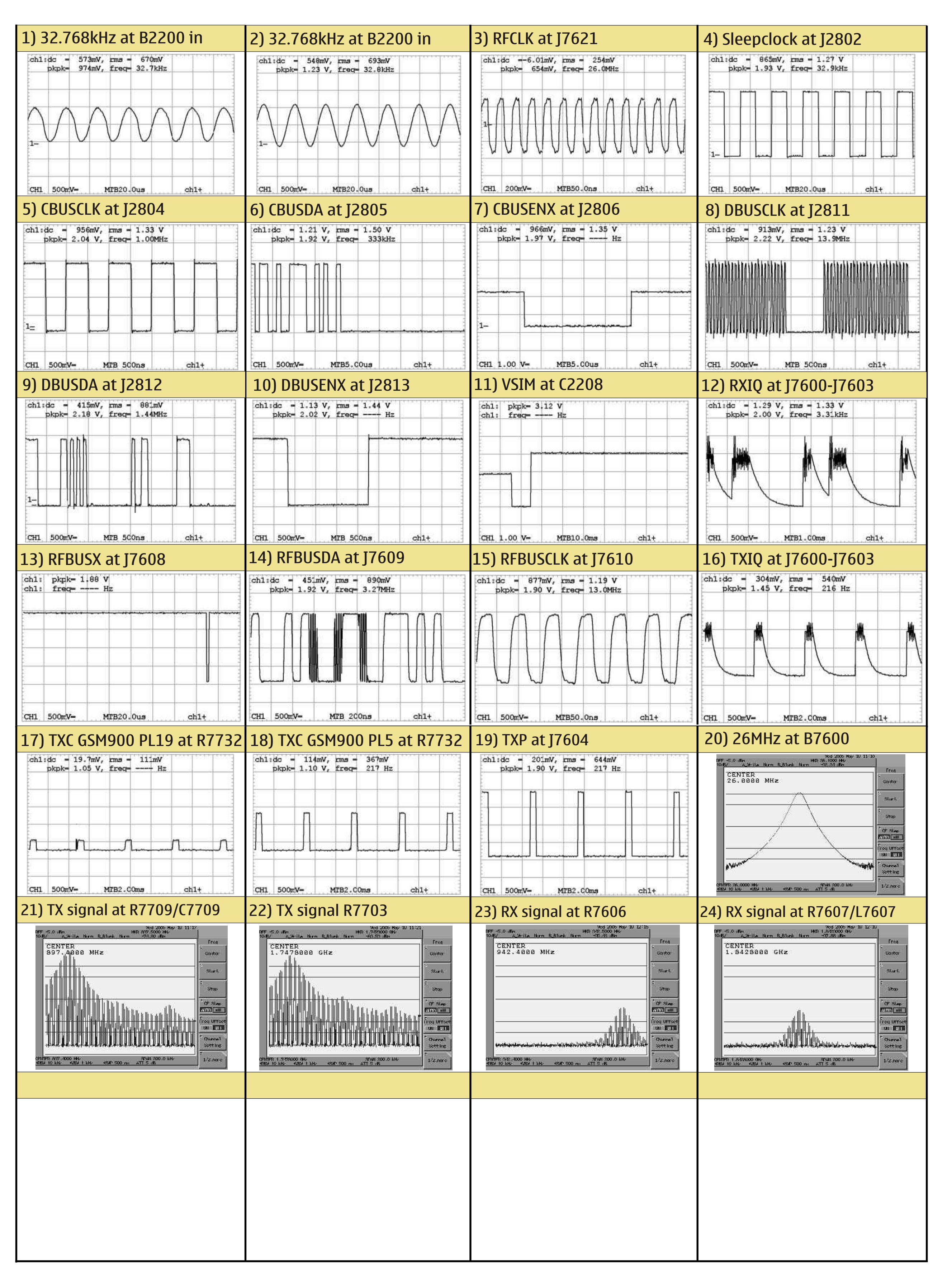


Keyboard
LCD Connector
White LED driver for display/keyboard
Keypad LED
Microphone
Audio amplifier
Earpiece
UEM
UPP
KDL
LCDUI(2:0)
KEY(10:0)
GENIO(31:0)
AUDIO(4:0)
XMIC(1:0)
XAUDIO(6:0)
2.8V
2.8V if lights on
1.8V
7.5V
3.6V
~4V


UEM
(RFCONV 9:0)
TXIP
TXIM
TXQP
TXQM
RXIP
RXIM
RXQP
RXQM
R7610
5k6
R7611
J7600
J7601
J7602
J7603
C7627
56p
C7628
56p
UEM
VR2
R7605
22R
C7620
2u2
UPP
(RFICCNTRL 2:0)
RFBUSX
RFBUSDA
RFBUSCLK
R7615
R7616
R7617
100R
J7608
J7609
J7610
C7610
10p
C7611
10p
C7612
10p
RF IC
N7600
PMB3258_V1.1
HUGIN
EN
DA
CLK
PLLREFR
CPLO
VCCPRE
VT
VREG
GNDVCO
VCCVCO
TX1
TX1X
TX2
TX2X
C1X
C1
C2X
C2
RX1
RX1X
RX2
RX2X
RX3
RX3X
RX4
RX4X
TXRXCTRL1
TXRXCTRL2
TXRXCTRL3
VCCTX
LOFISW
VCCFE
VCXOEN
VCXO
VCXOX
FSYS
VCCSC
VDDSC
VCCLOGEN
VCCVCXOVDDPLL
GNDVCXO
TSTVCXO
VCCBB
49,50,51,52,53,54,55,56,57,58,59,60,61= GND
R7609
12k
C7639
270p
R7619
3k3
R7663
4k7
C7614
4p7
C7613
1u0
C7641
270p
C7669
3n9
C7655
10p
C7656
100n
Z7603
824-915MHz
Z7604
1710-1910MHz
VCC
OUT
IN1
IN2
C7644
560p
C7645
560p
C7658
22p
C7625
22p
C7634
100n
VR3
VR1
VR4
VR5
UEM
2.8V
C7643
100n
C7630
22p
C7659
22p
C7668
22p
C7624
100n
C7623
22p
J7621
R2900
330R
C2900
1n0
RFCLK
UPP
Z7602
EFCH942MTCC2.ES5
942.5MHz
In
Out
R7606
0R
L7602
10nH
C7607
1p2
L7603
10nH
Z7600
EFCH1842TCC2
1842.5MHz
R7607
0R
L7604
2n2H
C7604
1p0
L7605
2n2H
R7632
39R
1p0
C7636
C7657
22p
B7600
26MHz
V7600
BBY56-02W
UEM
(RFAUXCON 2:0)
AFC
R7631
18k
R7630
100k
C7635
100n
R7704
1k0
R7700
1k0
C7700
33p
R7705
1k0
R7701
1k0
C7701
33p
R7706
1k0
R7707
1k0
C7702
33p
R7720
1k0
C7720
33p
R2207
1k0
PATEMP
UEM
(SLOWAD 6:0)
Front End Module
N7700
RF3282E5.1
TXIN_LB
RXOOUT_LB
OL2
OL1
TXP
ANT
PA_ID
TXIN_HB
RXOUT_HB
VPC
VREG
VBAT_LB
VBAT_HB
VBAT_PC
VC1
VC2
VC3
N7701
RF
G
C7631
0p5
RESNET_1DB
R7714
5R77
870R
R7709
0R
R7711
R7703
0R
VR4
2.8V
C7726
22p
C7728
0p5
R7733
100R
C7727
10p
R7732
10k
C7725
120p
J7604
TXP
UPP
(GENIO 31:0)
TXC
UEM
(RFAUXCON 2:0)
~4V
VBAT
C7711
2u2
C7712
15p
C7713
27p
C7714
27p
GND

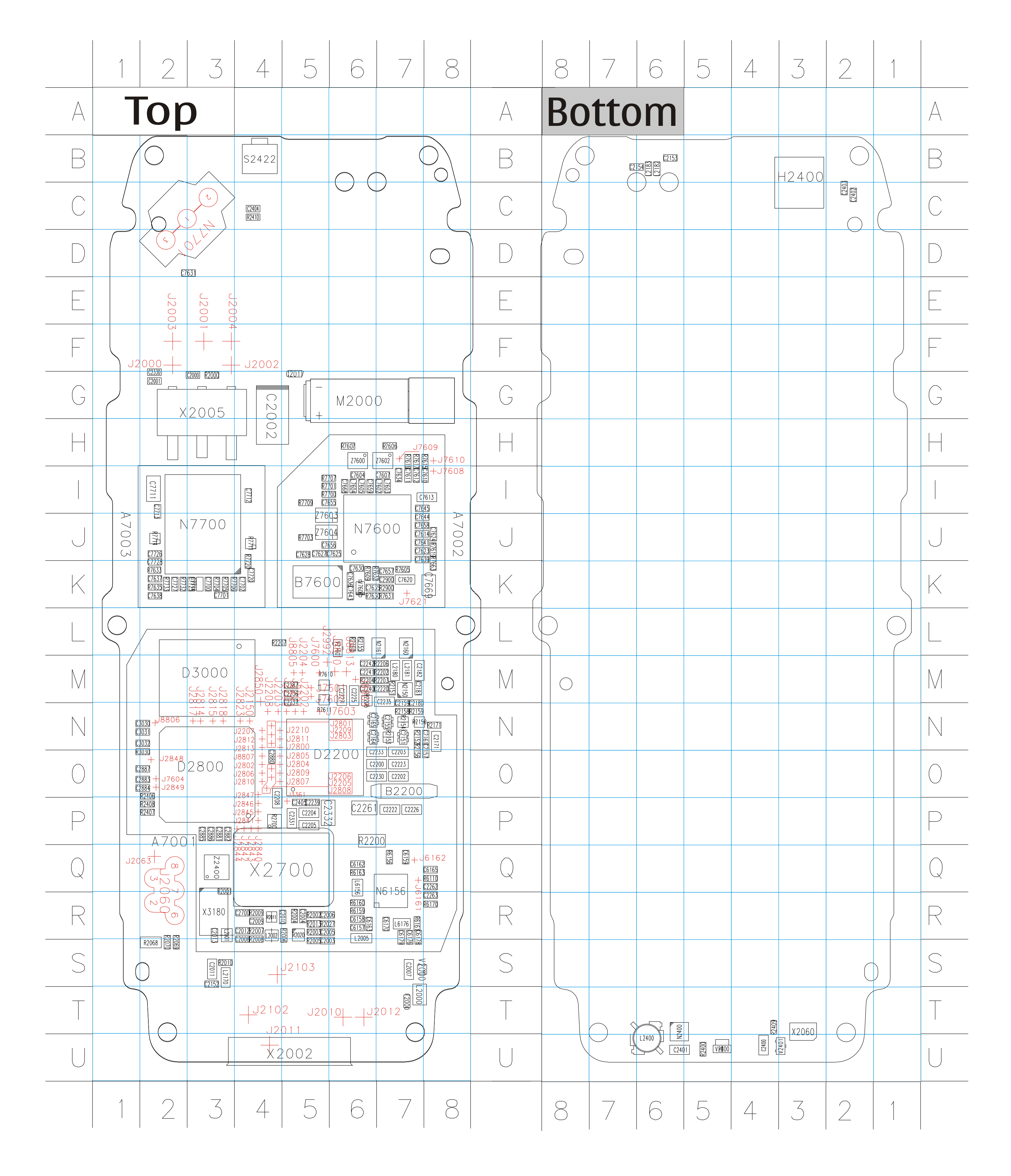


UEM (RFCONV 9:0)
TXIP
TXIM
TXQP
TXQM
RXIP
RXIM
RXQP
RXQM
UEM
VR2
UEM (RFAUXCON 2:0)
AFC
RF IC
N7600
PMB3258_V1.1
Z7602
SAFEK881MFM0F04R13
881.5MHz
Z7600
SAFEK1G96FB0F04R13
1960MHz
Z7603
824-915MHz
Z7604
1710-1910MHz
B7600
26MHz
V7600
BBY56-02W
49,50,51,52,53,54,55,56,57,58,59,60,61= GND
UPP (RFICCNTRL 2:0)
RFBUSX
RFBUSDA
RFBUSCLK
UEM 2.8V
VR3
VR1
VR4
VR5
UPP
RFCLK
Front End Module
N7700
BGY504V4.1
N7701
UEM (SLOWAD 6:0)
PATEMP
UPP (GENIO 31:0)
TXP
UEM (RFAUXCON 2:0)
TXC
~4V
VBAT
2.8V
VR4



VR5=2.8V
VR2=2.8V
VANA=2.8V
VR1=2.8V
VFLASH1=2.8V
VSIM
VIO=1.8V
VR3=2.8V
VCORE=1.36V
VR4=2.8V
VIO=1.8V
VFLASH=2.8V
VLED+=7.5V
VLED-=3,6V

B		C2239	P5	C7625	J6	J2012	T6	J6162	Q7	R2006	R5	R7610	M5
B2200	O7	C2240	M6	C7627	J5	J2060	Q2	J7600	M5	R2007	R4	R7611	M5
B7600	K5	C2241	M6	C7628	J5	J2063	Q2	J7601	M5	R2008	S4	R7615	H8
C		C2242	M6	C7630	K6	J2102	T4	J7602	M5	R2009	R4	R7616	H7
C2000	G3	C2261	P6	C7631	D3	J2103	S4	J7603	N5	R2010	S3	R7617	H7
C2001	G2	C2262	Q8	C7634	I7	J2150	N4	J7604	O2	R2011	R4	R7619	J8
C2002	G4	C2263	R8	C7635	K6	J2200	N5	J7608	I8	R2013	R5	R7630	K6
C2003	S5	C2287	M5	C7636	K6	J2201	N5	J7609	H7	R2020	R5	R7631	K7
C2004	R5	C2330	G2	C7637	K2	J2202	N5	J7610	H8	R2027	R5	R7632	K6
C2005	R5	C2331	P5	C7638	K2	J2203	N4	J7621	K7	R2068	S2	R7633	K2
C2006	R5	C2332	P5	C7639	J7	J2204	M5	J8805	M5	R2069	S2	R7635	K2
C2007	S7	C2400	U4	C7641	J7	J2205	O4	J8806	N2	R2070	S2	R7663	K8
C2008	R4	C2401	U6	C7643	K6	J2206	O4	J8807	O4	R2150	N7	R7700	I5
C2009	R4	C2402	C2	C7644	J7	J2207	N4	J8808	M6	R2151	M7	R7701	I5
C2010	R5	C2403	C2	C7645	I7	J2208	N4	J8810	M6	R2152	N7	R7703	J5
C2011	S3	C2404	C4	C7655	I5	J2209	N4	J8813	M6	R2153	N7	R7704	K3
C2012	R4	C2405	P5	C7656	J5	J2210	N4	L		R2154	N7	R7705	K3
C2013	R3	C2700	R4	C7657	K7	J2800	N4	L2000	T7	R2155	L6	R7706	K3
C2017	G5	C2880	O4	C7658	J7	J2801	N4	L2001	R3	R2156	O7	R7707	I5
C2151	N7	C2881	P3	C7659	I6	J2802	O4	L2002	R4	R2158	N7	R7709	I5
C2152	S3	C2882	P3	C7668	I6	J2803	N4	L2005	R6	R2159	N7	R7711	J4
C2153	B6	C2883	O2	C7669	K8	J2804	O4	L2170	S3	R2160	L6	R7714	J2
C2154	B7	C2884	O2	C7700	K3	J2805	O4	L2180	M7	R2171	N8	R7720	K4
C2155	N6	C2885	P3	C7701	K3	J2806	O4	L2181	M7	R2200	P6	R7732	K2
C2157	O8	C2886	P3	C7702	K4	J2807	O4	L2182	B6	R2202	M7	R7733	K2
C2159	N7	C2887	O2	C7711	I2	J2808	O4	L2183	B6	R2203	M7	S	
C2161	N8	C2900	K7	C7712	I4	J2809	O4	L2400	U6	R2204	M6	S2422	B4
C2164	N6	C3030	N2	C7713	I2	J2810	O4	L6156	Q6	R2205	M6	V	
C2165	N7	C3031	N2	C7714	K3	J2811	N4	L6176	R7	R2206	M7	V2000	S7
C2171	N8	C3032	N2	C7720	K4	J2812	N4	L7602	I7	R2207	L4	V2160	L6
C2180	N7	C6157	R6	C7725	K3	J2813	N4	L7603	I7	R2400	U5	V2400	U5
C2181	M7	C6158	R6	C7726	J2	J2814	N3	L7604	I6	R2406	O2	V2401	U3
C2182	M7	C6159	Q7	C7727	K2	J2815	N3	L7605	I6	R2407	P2	V7600	K6
C2200	O7	C6162	Q6	C7728	K2	J2817	N3	M		R2408	P2	X	
C2202	O7	C6163	R6	D		J2818	N3	M2000	G6	R2409	T4	X2005	G3
C2203	O7	C6165	Q8	D2200	O5	J2823	N4	N		R2410	C4	X2060	T3
C2204	P5	C6170	R7	D2800	O3	J2840	P4	N2150	M7	R2700	P4	X2700	Q4
C2205	P5	C6176	R7	D3000	M3	J2841	P4	N2160	L7	R2900	K7	Z	
C2208	P4	C6178	R7	F		J2842	P4	N2161	L7	R3030	O2	Z2400	Q3
C2220	M7	C6179	R7	F2000	T7	J2843	P4	N2400	T6	R6110	Q8	Z7600	H6
C2222	P7	C7604	I6	H		J2844	P4	N6156	Q7	R6156	Q7	Z7602	H7
C2223	O7	C7607	I7	H2400	C3	J2845	P4	N7600	J7	R6159	R6	Z7603	J5
C2225	M6	C7610	I8	J		J2846	P4	N7700	J3	R6160	R6	Z7604	J5
C2226	P7	C7611	I7	J2000	F2	J2847	O4	R		R6161	R7		
C2227	M6	C7612	I7	J2001	F3	J2848	O2	R2000	G3	R6163	Q6		
C2230	O7	C7613	I7	J2002	F3	J2849	O2	R2001	Q3	R6170	R8		
C2233	O7	C7614	J7	J2003	F2	J2850	M4	R2002	R5	R7605	K7		
C2235	M7	C7620	K7	J2004	F3	J2992	M5	R2003	R5	R7606	H7		
C2236	M5	C7623	J7	J2010	T6	J3361	P5	R2004	R5	R7607	H6		
C2237	M5	C7624	J8	J2011	U4	J6161	Q7	R2005	S5	R7609	K6		



B		C2239	P5	C7624	J8	J2011	U4	J6161	Q7	R2000	G3	R6163	Q6
B2200	O7	C2240	M6	C7625	J6	J2012	T6	J6162	Q7	R2001	Q3	R6170	R8
B7600	K5	C2241	M6	C7627	J5	J2060	Q2	J7600	M5	R2002	R5	R7605	K7
C		C2242	M6	C7628	J5	J2063	Q2	J7601	M5	R2003	R5	R7606	H7
C2000	G3	C2261	P6	C7630	K6	J2102	T4	J7602	M5	R2004	R5	R7609	K6
C2001	G2	C2262	Q8	C7632	H2	J2103	S4	J7603	N5	R2005	S5	R7610	M5
C2002	G4	C2263	R8	C7634	I7	J2150	N4	J7604	O2	R2006	R5	R7611	M5
C2003	S5	C2287	M5	C7635	K6	J2200	N5	J7608	I8	R2007	R4	R7615	H8
C2004	R5	C2330	G2	C7636	K6	J2201	N5	J7609	H7	R2008	S4	R7616	H7
C2005	R5	C2331	P5	C7637	K2	J2202	N5	J7610	H8	R2009	R4	R7617	H7
C2006	R5	C2332	P5	C7638	K2	J2203	N4	J7621	K7	R2010	S3	R7619	J8
C2007	S7	C2400	U4	C7639	J7	J2204	M5	J8805	M5	R2011	R4	R7630	K6
C2008	R4	C2401	U6	C7641	J7	J2205	O4	J8806	N2	R2013	R5	R7631	K7
C2009	R4	C2402	C2	C7643	K6	J2206	O4	J8807	O4	R2020	R5	R7632	K6
C2010	R5	C2403	C2	C7644	J7	J2207	N4	J8808	M6	R2027	R5	R7633	K2
C2011	S3	C2404	C4	C7645	I7	J2208	N4	J8810	M6	R2068	S2	R7635	K2
C2012	R4	C2405	P5	C7655	I5	J2209	N4	J8813	M6	R2069	S2	R7663	K8
C2013	R3	C2700	R4	C7656	J5	J2210	N4	L		R2070	S2	R7700	I5
C2017	G5	C2880	O4	C7657	K7	J2800	N4	L2000	T7	R2150	N7	R7701	I5
C2151	N7	C2881	P3	C7658	J7	J2801	N4	L2001	R3	R2151	M7	R7702	J4
C2152	S3	C2882	P3	C7659	I6	J2802	O4	L2002	R4	R2152	N7	R7703	J5
C2153	B6	C2883	O2	C7668	I6	J2803	N4	L2005	R6	R2153	N7	R7704	K3
C2154	B7	C2884	O2	C7669	K8	J2804	O4	L2170	S3	R2154	N7	R7705	K3
C2155	N6	C2885	P3	C7700	K3	J2805	O4	L2180	M7	R2155	L6	R7706	K3
C2157	O8	C2886	P3	C7701	K3	J2806	O4	L2181	M7	R2156	O7	R7707	I5
C2159	N7	C2887	O2	C7702	K4	J2807	O4	L2182	B6	R2158	N7	R7708	J2
C2161	N8	C2900	K7	C7707	I5	J2808	O4	L2183	B6	R2159	N7	R7720	K4
C2164	N6	C3030	N2	C7711	I2	J2809	O4	L2400	U6	R2160	L6	R7728	K2
C2165	N7	C3031	N2	C7712	I4	J2810	O4	L6156	Q6	R2171	N8	R7732	K2
C2171	N8	C3032	N2	C7713	I2	J2811	N4	L6176	R7	R2200	P6	R7733	K2
C2180	N7	C6157	R6	C7714	K3	J2812	N4	L7602	I7	R2202	M7	S	
C2181	M7	C6158	R6	C7720	K4	J2813	N4	L7603	I7	R2203	M7	S2422	B4
C2182	M7	C6159	Q7	C7725	K3	J2814	N3	L7604	I6	R2204	M6	V	
C2200	O7	C6162	Q6	C7726	J2	J2815	N3	L7605	I6	R2205	M6	V2000	S7
C2202	O7	C6163	R6	C7727	K2	J2817	N3	L7607	H6	R2206	M7	V2160	L6
C2203	O7	C6165	Q8	D		J2818	N3	L7609	H2	R2207	L4	V2400	U5
C2204	P5	C6170	R7	D2200	O5	J2823	N4	L7610	H2	R2400	U5	V2401	U3
C2205	P5	C6176	R7	D2800	O3	J2840	P4	L7617	H6	R2406	O2	V7600	K6
C2208	P4	C6178	R7	D3000	M3	J2841	P4	L7709	I5	R2407	P2	X	
C2220	M7	C6179	R7	F		J2842	P4	M		R2408	P2	X2005	G3
C2222	P7	C7604	I6	F2000	T7	J2843	P4	M2000	G6	R2409	T4	X2060	T3
C2223	O7	C7607	I7	H		J2844	P4	N		R2410	C4	X2700	Q4
C2225	M6	C7610	I8	H2400	C3	J2845	P4	N2150	M7	R2700	P4	Z	
C2226	P7	C7611	I7	J		J2846	P4	N2160	L7	R2900	K7	Z2400	Q3
C2227	M6	C7612	I7	J2000	F2	J2847	O4	N2161	L7	R3030	O2	Z7600	H6
C2230	O7	C7613	I7	J2001	F3	J2848	O2	N2400	T6	R6110	Q8	Z7602	H7
C2233	O7	C7614	J7	J2002	F3	J2849	O2	N6156	Q7	R6156	Q7	Z7603	J5
C2235	M7	C7618	H6	J2003	F2	J2850	M4	N7600	J7	R6159	R6	Z7604	J5
C2236	M5	C7620	K7	J2004	F3	J2992	M5	N7700	J3	R6160	R6		
C2237	M5	C7623	J7	J2010	T6	J3361	P5	R		R6161	R7		

